PIKES PEAK RADIO AMATEUR ASSOC

COLORADO SPRINGS,
COLORADO

DECEMBER 1988

PIKES PEAK RADIO AMATEUR ASSOCIATION, INC.
P.O. Box 16521
Colorado Springs, CO 80935

FIRST CLASS MAIL

PPRAA CHRISTMAS PARTY
9 DEC AT IRON SPRINGS CHATEAU
INTERESTED? CALL
RICK WB7THT @ 599-7665

Ø BEAT

SPECIAL SERVICE CLUB

ZERO BEAT is published monthly in the interest of the members of the Pikes Peak Radio Amateur Association, Inc., P.O. Box 16521, Colorado Springs, Colorado 80935. Cost is 50¢ per month for non-members or a $4.00 per year subscription. Permission is given to reprint articles or excerpts provided credit is given. Deadline for submission of articles is the 21st of the month. Classifieds accepted anytime.

The Pikes Peak Radio Amateur Association meets on the second Wednesday of each month at the Hewlett-Packard facility, at the intersection of Lexington and Union, at 7:30 p.m. All amateurs and interested parties are invited to attend.

Editor: Keith Goobie NYØT, 5335 Coneflower Ln., Colorado Springs, CO 80917 637-1525

CHRISTMAS MESSAGE

(From the President)

Christmas is just around the corner and I would like to take this opportunity to pass on my best wishes for the season. I will also use this forum to pass on some thoughts to bear in mind for the this festive time of the year.

By the time that you will receive this copy of 0-Beat, it will be about two short weeks before the Christmas holidays really start in earnest. It is a time to be festive and a time to reflect back on what we have to be thankful for. We all wish that we could be in a better situation, but we should take some time to reflect that there are those who are in a much worse situation than we are.

Christmas is a time for giving. I have not had a chance to address the club via the newsletter since I have taken office as President, but I would like to convey to the club membership how impressed I have been with manner in which you have stepped out to volunteer or "give" of your time to assist in making the club what it is. Sometimes the job may seem small, but it is the collection of all these small and large activities that make the club as successful as it is. I am happy to announce at this time that Ron NKØP and Rick WB7THT have stepped forward to organize the Club Swapfest this year. My thanks to them and to all the others who have helped or are continuing to help the club in their own respective manner.

At this time of year, we see ourselves traveling to and visiting friends to celebrate the festive season. There are two factors at this time of year that make traveling the highways a little more dangerous than normal - weather conditions and drunk driv ers. As such, I urge you to be more attentive while driving and to exercise control while driving and talking on the radio. In the same vein, we tend to be not so active in listening or moni toring the local frequencies. During a period of time when accidents are more likely to happen, I ask that you make an effort to listen or monitor for people who may be reporting acci dents and be willing to volunteer to lend them assistance in contacting the police or other emergency agencies.

In summing up, I wish that you all enjoy the festive season and all that it offers. Please lend a helping hand to those who need it. Merry Christmas and a Happy New Year

Keith Goobie NYØT

DECEMBER CLUB MEETING

The next regularly scheduled meeting of the Pikes Peak Radio Amateur Association will be held at the Hewlett Packard facility at the intersection of Union and Lexington Boulevards. Direction may be obtained from any Board member of the Club. Meeting time is 7:30 pm.

The topic to be covered this month will be a discussion of the actions taken by the amateur community to date to deal with the new restriction proposals by the County Land Use Commission. These proposals seek to limit the number of antennas an amateur may have as well as the height that they should fall under.

"THE VIEW FROM THE PEAK"

by George Hinds, N8CIX

A LITTLE OUT OF THE ORDINARY are two publications that well may be of interest to readers: **"MONITORING TIMES"** published monthly is a magazine aimed primarily at short wave listeners, with sections also dealing with new radio gear, scanning Aero, VHF & UHF bands, amateur radio, new product reviews, and a rather complete list of international short wave broadcast stations by frequency and program. Each issue has about 100 pages; a subscription yearly is $18 in the U.S.A. A sample issue can be obtained for $2. Write to: Monitoring Times, P.O. Box 98, Brasstown, N.C. 28902.

Another monthly magazine, **"RCMA NEWSLETTER"**, is in a 5x8 format and runs about 75 - 90 pages per issue. The initials stand for Radio Communications Monitoring Association. Intended to appeal to those who enjoy monitoring police, fire, ambulance, railroads, aircraft, space, amateur and government communications, this compact but complete magazine is built around reports and notes submitted by subscribers/members. Not omitted is monitoring below 30 MHz, either, as well as info from Canada, the FCC, digital and commercial communications -- it's all covered within. Of special interest if you plan to attend the January 1989 Inaugural Ceremonies in Washington, D.C. is a special section in the December 1988 edition listing VHF & UHF frequencies expected to be in use, including government, news media, aeronautical, hotels and motels, etc. Membership in the U.S.A. is $18.50 yearly. Write to: RCMA, Inc., P.O. Box 4563, Anaheim CA 92803.

If you've not seen either or both of the above magazines, and you think you may be interested, I'll carry an issue with me in the car for a while -- I'm usually listening on 145.16R at home; or on 146.52 in Colorado Springs.

"CHANGES -- THEY ARE A'COMING IN THE AMATEUR RADIO SERVICE... and it's on the move in our neighbor to the north: Canada. There they are preparing to start a "no-code" entry-level class of amateur radio operator. This, of course, is consistent with the practice of many other nations. At this time, it looks like entry-level licensees will be given access to all ham bands, all modes and emissions, above 30 MHz. Those who choose to take a 5 w.p.m. code test will additionally receive limited privileges on HF.

Must the Amateur Radio Service in the U.S. take similar action? No, say many -- code is still essential in radio. Keeping code will, they say, keep out the operator problems inherent in CB radio. It also will serve to limit congestion. And, I suspect, it springs from one's natural feeling that, if they had to study and pass a code test, so should every other would-be amateur.

A growing number of amateurs, however, are citing inescapable facts: the Amateur Radio Service is on a down-hill slide in numbers. Commercial services are "ganging up" against amateurs to grab more and more of what they see as the huge amount of spectrum allocated to us, a fact already visible on 220MHz, where in essence the League and many amateurs won the battle against no-code licenses, but now have lost the war and part of the band; in reality, code actually is no more essential in this day and age than is spark gap (the maritime service has set a mandatory deadline to terminate use of code); potential amateurs, well-qualified in electronics, having no interest in a fading art like code, are kept from entering amateur radio because of their personal disinterest in, and refusal to waste time learning, the code.

As I've noted in a previous column, perhaps the fear of trying something new in amateur licensing should be subjugated to the very real danger of losing more and more of our presently allocated spectrum unless we act soon to create a surge in new amateurs entering the service and using the bands. As senior amateurs pass on, and newcomers decline in number, the end of the amateur radio service in the U.S. as we know it today will arrive -- not, perhaps, in my lifetime or yours, but it will be as inevitable as time itself. Just as our numbers decrease, so will successful attacks upon the amateur radio spectrum increase. It's time to advance with the power of positive thinking, rather than to run away from reality because of age-old fears and prejudices. Henry Ford was quoted as saying, "Nobody can really guarantee the future. The best we can do is size up the chances, calculate the risks involved, estimate our ability to deal with them, and then make our plans with confidence."

SEVEN MONTHS AFTER AMATEUR FILES COMPLAINT, KENWOOD FINALLY ANSWERS! Most readers of *ß* BEAT are familiar with the Kenwood TM-721A dual-bander problem: a display that's difficult, sometimes impossible, to see in bright sun conditions. However, the advertising sheet states the LCD display "provides best visibility in direct sunlight...". To me and many others, the advertising is misleading. The rig is primarily in-

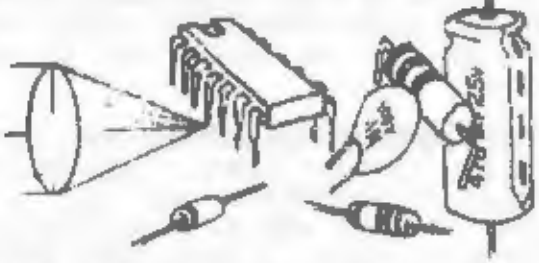
tended for mobile use, yet often one can't see the display; then it's hazardous to attempt to program while in motion.

Beginning mid-April, I wrote a series of complaint letters to Kenwood - another letter in June; another (certified mail) in September. I complained to the ARRL advertising manager; his reply criticized those who purchase by mail, not misleading advertisers.

Finally, in November, I complained to the California state consumer affairs office; they turned my complaint over to the L.A. district attorney. I now have a brief letter from Kenwood advising they are "looking into the feasibility of changing the LCD display on this radio to one that is more visible" and "we trust that if our engineering department is able to develop an alternative display that it will be made available to present owners." Meanwhile, it's in the hands of the D.A. and the BBB, too. Stay tuned for further developments.

Best wishes for happy holidays to you and yours.

George N9CIX



Ramsey HR-4 Ham Radio Receiver Kit

Looking for a simple, inexpensive receiver kit? Ramsey Electronics has several for 40 meters, 80 meters, Swl, and aircraft bands. The basic kit sells for $25. It consists of the p.c. board and a handful of components. There are also qrp transmitter kits for 80 and 40 meters. It should be possible to use them together in a simple qrp transceiver. An optional plastic case is available for $13.

The 80 and 40 meter receivers work on AM, SSB, or CW. They use a direct conversion design with the NE602 IC. The NE602 has been featured in a QST receiver article in the past year. The claimed sensitivity is 1 microvolt, and it has an audio output of 50 mw, which is enough to drive an earphone to a comfortable level. It operates from a 9 volt battery which should last for several months.

My daughter, Carolyn (KB0BWI), built the 40 meter receiver kit with just a little assistance. The pc board and components are good quality. The instruction sheet is sparse, but easy to follow. Assembly took about 2 hours, but more experienced kit builders will take less time. The kit worked the first time it was turned on. There is very little adjustment required. The tuning is very touchy and uses a varactor diode. The entire 40 meter ham band was compressed into just a fraction of a turn of the tuning potentiometer. I modified the tuning by putting a 10K resistor in series with the tuning pot. This resulted in much better band spread. The receiver tuning also will shift a bit due to hand capacitance. This is a nice kit for a first time builder and results in a simple, but useable receiver.

Ramsey Electronics advertises in Ham Radio Magazine and several other electronic and ham magazines. See their ads if you are interested in ordering one of the kits.

73's Jim WA9ABB

ANTENNA SYSTEMS

by KDØSO

We have looked at Half Wave dipoles and Quarter wave Verticals, in the past couple of months. In this article I want to deal with 5/8 wave vertical antennas.

If as I have mentioned, the Quarter wave, is so efficient, why then, would we want an antenna, at an odd 1/8 of a wave, what purpose could it serve?

Every antenna has it's purpose. As you already know the Quarter wave Antenna has a radiation angle of some 45 degrees but, what if you wanted to radiate a signal close to zero degrees, for local only?

True it would be nice, if we could hang an antenna upside down, by some giant skyhook, so it would radiate down on us. Such is not currently possible, except vhf etc, by satellite. So we do the next best thing, construct an antenna that will radiate a zero degree angle of radiation.

How long (or high), should it be? The formula to calculate this antenna length is easy to remember. 585/f = length if feet. The 58 for 5/8, and the last 5 for five 1/8ths. very simple.

Again, and I want to emphasize this, to achieve a good radiation pattern, you need a good Counterpoise. (GROUND RADIALS) That ole poppy cock about no ground radials required, means a lousy pattern and poor radiated signal characteristics. If you want to do like the pros, you will need ground radials, on this antenna. The normal amount is 120 equally spaced radials at 1/4 wave length plus five percent. However, an 1/8 wave will create a satisfactory pattern. The minimum number is at least eight, for satisfactory pattern effect. As I said earlier, the pros in broadcasting (AM TYPES), use 120. Try being a pro you'll like it. Want to have the loudest signal in town? This antenna will give it to em.

Here are some of the figures for some of the various bands.

5/8 length	Band	Freq.
20.5 feet	10 Meters	28.5 Mhz
19.7 feet	10 Meters	29.6 Mhz
27.5 feet	15 Meters	21.3 Mhz
41.3 feet	20 Meters	14.15 Mhz
81.25 feet	40 Meters	7.2 Mhz
158.1 feet	80 Meters	3.7 Mhz

As you can see, the heights are quite something. Maybe you might like to try your hand at construction of your own two meter antenna, that only requires a four foot length of tubing on a 19.5 inch circle of metal and whata you know, a great base station antenna, for two meters and here's the neat part, how about a band width of some nine megs. That means the whole two meter spectrum plus some, for police freqs too. See ya next month on a new subject. I want to start some fun week end projects, useful in the shack. If you have ideas you would like to see, give me a call at 591-2703. I'll be happy to entertain technical projects to benefit the Ham community.

73's Paul KDØSO

SOLAR CYCLES

(or How to Predict a Snowstorm in the Rockies)

With all the talk lately about "sunspots " and all the recent activity on the 28MHZ band I thought it would be worthwhile to review some basic information on solar activity and review some predictions I have read in some of the short-wave journals lately. We are currently in the 22nd recorded sunspot cycle. Based on the average of the first 21 sunspot cycles, the following is a general summary of sunspot cycle behavior:

1. The average period of a sunspot cycle, that is, from minimum to maximum, is about 10.7 years.
2. The average period from the beginning of the cycle (minimum)
to the maximum is about four years.
3. The average period from the maximum to the minimum of a cycle is about 6.7 years.

In order to determine where we are at in the current cycle we need to know the current SUNSPOT NUMBER. In cycle 21 the highest sunspot number was 165 and it occurred in December 1979. This, by the way, was the second highest ever recorded.

Sunspot number are smoothed because month to month averages can vary widely, and scientists have found that by smoothing sunspot numbers, a more accurate assessment of trends can be made. a smoothed number for a given month (R7) can be obtained by using the following equation: R7=(N1+N2...+N7...+N13)/13 where N1-N13 are sunspot numbers for 13 consecutive months and R7 is the smoothed number centered on the 7th month of the sequence. Remember that a smoothed sunspot number can not be obtained until monthly numbers for six months afterwards are available! Monthly numbers are obtained by by averaging DAILY values during each month.

The highest maximum ever recorded was during cycle 19, which started in April 1954 with a smoothed number of 3.3. Within 2.5 years is exceeded 159, which had been the previous record in cycle 3. By march 1958 the smoothed number was 201.3!

Condiitons during cycle 19 have already become legendary. Worldwide ionispheric propagation in the six meter band was observed. From 1957 to 1959, transatlantic and transcontinental TV DX was commonplace via the ionospheric on channels 2-5. (Can anyone tell me how to explain that to my neighbors?)

Cycle 20 was more "normal" reaching a maximum of 111 in November 1968. To cycle 20 belongs the distinction of the longest plateau at maximum ever observed. Cycle 20 was also longer (11.5 years) than the average cycle, and took longer (7.4 years) to go from maximum to minimum.

Cycle 21 began in June 1976 with a smoothed number of 12.2. In a little over 2 years it was above 100 and by November of 1979 had become the second highest cycle ever recorded.

Well, what about cycle 22?? After reading about what we know about sunspots I'm convinced it is about as accurate a prediction as a winter snow storm in the rockies, but I found a few "experts" willing to stick their necks out in a recent article. If we consider the sun is about four billion years old, and that we have records for only about 250 years you can readily see the reason to be skeptical.

Cycle 22 will reach its maximum in the summer of 1990. (Plenty of time to get that six meter beam up)

There is a possibility that cycle 22 will peak at 200 or higher, and that it will be the highest ever observed! That would result in around the clock 10 meter DX! During the next 3 years short-wave DX should be better than ever before. So keep your radio tuned in ti WWV at 2.5, 5, 10, 15, and 20 MHZ.

Even if the current cycle is less than spectacular, with the new advances in receiving and the fact that more people can afford to buy short-wave gear I expect we are in for a whole lot of fun! C. U. on the bands!!

73 Ron NKØP

MIR now Radio Active!

I am sure that you all can remember the frenzy and the excitement of working the hams that were on board a couple of the Space Shuttle missions. Now Ham Radio activity has started from the Soviet Space Station MIR. Cosmonauts Vladimir Titov and Musa Manarov will be using the calls U1MIR and U2MIR respectively. Vladimir Titov is the Captain of the MIR Space Station and he became interested in operating Ham Radio after watching and listening to his counterpart

English language transmissions have been heard as one of the requirements for obtaining a license in the USSR is a demonstrated proficiency in the English language. Ham radio activity started on or around 19 November. To date most of the contacts in North America have been late in the evening or early morning. Stations in the local area have reported hearing the MIR Space Station with a few lucky ones making contact. Information from those that have made contact indicate the QSO's are short in nature.

The ham radio station consists of a quarter wave ground plane mounted on the outside and a 2 watt FM transceiver from YAESU (FT-290). There are plans to upgrade the transceiver to a ten watt model shortly (If you remember, many successful contacts were made with the shuttle and they were a handheld transceiver with a wire antenna that was attached to the window!).

Operation will be a split frequency mode with the Cosmonauts listening on 145.525 Mhz as the primary frequency and 145.575 Mhz as the secondary. They will be transmitting on 145.550 Mhz. These frequency allocations were made based on the 2 Meter allocations for most of Europe, Africa, and most of Asia (spanning from 144-146 Mhz). Also, the frequencies allocated by the ITU for Amateur Radio Satellite Service require all spacecraft operations on 2 meters to be in the 144-146 Mhz range. However, as most of you are aware, the European version of the FT-290 is capable of operation anywhere in the 144-146 range. Late reports have been received that the Cosmonauts have been using simplex operations on 145.400 and 145.550 Mhz simplex.

The Cosmonauts will operate U1MIR/U2MIR during their crew rest and recreational periods on Saturdays and Sundays mainly. This schedule is subject to change. To find out pass information, call into the Dits & Bits BBS and use the satellite tracking option to determine where the space station is or you may find some details on WB0BLV PBBS (145.010 / 145.090 / 446.800 Mhz).

(Extracts were taken from AMSAT News Service Bulletin 310.02)
Keith NY0T

NEWS FROM UP NORTH

Colorado Repeater Association

The 145.145 Mhz N0ESX/R has changed locations. It is now operating from the Squaw Mountain Site and should provide coverage up the I70 corridor West to the Eisenhower Tunnel. It is planned to have an autopatch installed on the Squaw Mountain system sometime in the 1989 timeframe.

The change of sites has been due to technical advances and the dedication for an outstanding repeater site by the Squaw Mountain Manager - all amateur repeaters located at this site now use the same transmit and receive antennas. This means that all amateur repeaters at this site should have virtually the same coverage. Squaw is twenty miles west of Denver at an elevation of 11,440 feet.

The CRA has been assigned two new repeater frequencies. These are a two meter frequency 145.460 out / 144.860 in and a 70 centimeter frequency 447.200 out / 442.200 in. Both of these repeaters are expected to be operational from Riley Peak during the 1989 timeframe.

(from Mike WD0FVV)

The impressive tower and antenna setup of the Squaw Mountain repeater site. Certainly not a place for a handie talkie or a rig with a weak front end.

DITS & BITS

FOR SALE

Rohn 25G Tower Section. Contact Chuck Myers WØRNT @ 632-0848.

FOR SALE

MFJ-816 SWR Bridge - $15.00
MFJ-901 Antenna Tuner $30.00
MFJ-250 1-KW Oil Filled Dummy Load - $20.00
B&W CS-3G three position antenna switch - $15.00
Ask for Jack Wells, Jr KØYPE at (719)-576-1357 between 2:00 pm and 7:00 pm.

WANTED

Clegg FM28 2m or Midland 13-510 or 13-510A transceiver. Contact Bob Haggart @ 392-1617 or 390-8911.

WANTED

HF Transceiver - Good condition - Any Make. Contact Paul Ryan (NØCALL) @ (w) 554-6542 or (h) 488-2419.

FOR SALE

Tandy 1000 MS-DOS Computer, 384K, 2 Floppy Drives, Monitor & 1200 Baud Modem. Asking $600.00
Star NX-10 Printer - $125.00
Brother HR-15 XL Daisy Wheel with 2 Print Heads - $200.00
Contact George N8CIX @ 687-2610

FOR SALE OR TRADE

Yaesu FT-726R setup for OSCAR. Trade for Kenwood TS-811 or Kenwood TS-711 or sell. Contact Al NØCMW @ 473-1660.

ARTICLES FOR JAN 89 0-BEAT

I will not be in the area when it comes time to publish the Jan edition of the newsletter. I therefore ask that you submit your articles for that month's edition to me early (before 20 Dec 88) or give them to Ron NK0P who will do the final preparation of the newsletter before it goes to printer. I would like to thank you for your assistance in this matter.

Keith NYØT

AFA RADIO CLUB MINUTES

The AFA Radio Club meeting was held 8 Nov 1988 at 1145 hrs at Arnold Hall. Four members were present plus two prospective members, Floyd KB5FCW and Faylene KB5FTN. It was decided that a family membership would be $7.00. Secretary reported that the treasurer now has $42.00. The next meeting will be held at the community center - 1145 hrs - 13 Dec 1988. The Net Conference Proposal is receiving favorable review. The Pres appointed Ron NKØP to head membership committee.

Submitted by Al NØCMW.

TRIVIA CORNER

There was no winner to last month's trivia. The question was - a ham received the social security number 144-40-5100. He was glad that it would be easy to remember since each part realted to ham radio.. How So??

The answer: 144 - Low End of Two Meter Band ; 40 - Forty Meters-Popular Ham Band; and 5100 - B&W Amplifier

This month a simple one: Name the radio magazine that has a column who name refers to a vacuum tube state/operation. Winner gets a free breakfast at the Village Inn.

Remember mail your entries to TRIVIA, 7460 Taos Drive, Colo Spgs, CO 80920.

HOMEBREW NIGHT

The January Club Meeting will the annual Homebrew Night. Don't forget to polish off your latest project and bring it into the meeting and show it off to the other members.

Prizes will be awarded to the top three finishes. Placement will be based on the majority vote of those in attendance that evening.

RENEWALS

Starting in January, it will be time to renew your membership with the Club. February will be the last month that you will receive the 0-Beat newsletter should you decide not to renew with the Club.

AMATEUR RADIO LICENSE EXAMINATIONS

WHEN: Sat, 18 Feb 89 at 9:00 AM
WHERE: First United Methodist Church
420 North Nevada Avenue
Colorado Springs, CO
WALKINS: Allowed
TALK-IN: 146.37/97

NEEDED

1. Original FCC license , if any
2. A copy of your FCC license, if any
3. Two forms of positive identification (driver's license, birth certificate, passport or library card)
4. $4.55 check or M.O. payable to ARRL/VEC
5. Completed FCC form 610
6. If physically handicapped, a physicians certificate describing the nature of the disability. Arrangements should be made prior to testing

Sponsored by: PIKES PEAK RADIO AMATEUR ASSOCIATION

For more information contact:
Max Stafford 488-9289

CONGRATULATIONS

.. to those that recently upgraded during the November VE testing. They are as follows.

Applicants name |Call |License class before session |License earned

Dennis Caton |None |Novice |Tech
Jack Wells |KØYPE |Advanced |Extra
Sam Crisbens Jr. |None |Novice |Tech
Spencer Buckner |None |None |Extra
Jeff Gibson |None |None |Novice
Arthur Blair |None |None |Novice
William Pherigo Jr. |N0IZL |Tech |Advanced
Harold Kittel |NØJUD |Gen |Advanced
Mark Richardson |NØEPF |Tech |General
Keith Maran |NØJQN |Tech |Gen
Morris Hinkle |None |None |Tech
Saralee Hesen |NØIZQ |Tech |Gen
Dale Medearas |None |Novice |Tech
Paul Bame |None |Novice |Tech
Donald Watson |NØGUG |Tech |Gen

Mee EDITEL

MINUTES OF NOV GENERAL MEETING

submitted by Al NØCAW, secretary

The general meeting of the Pikes Peak Radio Amateur Association was held at the Hewlett-Packard Briargate Facility, Wednesday evening 12 Oct 1988. The meeting was called to order by the president Keith NYØT at 19:30, and followed by the introduction of members and guests.

The minutes of the previous General Meeting and Board meeting were approved as printed in Ø-Beat.

Committee Reports

Note: Anyone wishing to help out on any of these committees, please contact the chairman at the phone number listed. Thank you for your support.

Treasurer - Ron NKØP (593-8352):
Previous balance was $2028.83, income of $0363.50, expenses of $0901.33, leaving a balance $1491.00.

Interference - Ron NKØP (593-8352):
Nothing to report this time.

Education - Dave N4DJS (531-0633):
The Novice class test will be held the following Tuesday. The next set of classes will be in the spring. If there are people who are interested in attending classes that teach the other license classes, please contact Dave.

Publicity - Karen N1FED (495-0091):
Will be proposing an idea at the Board meeting to do a mass mailing of info on the Club to all hams in El Paso County.

Colorado Council of Amateur Radio Clubs (CCARC) - Oak KØROL (591-1426):
Waiting on minutes from the last CCARC meeting.

Deaf and Blind School - Jim WA9ABB: (598-7543):
The classes are progressing well, however there is still a need for one on one instruction with the students and if you are interested please contact Jim. He and Chris NXØE are still working on an SWR problem that they have with the antenna that they recently put up at the school.

Ø-Beat - Keith NYØT (637-1525):
The distribution of Ø-Beats is now up to 400 copies a month.

ARES - Mallory NØKF (591-0049):
Mallory was not present, however Jim WA9ABB did report that the antenna at the AFA Hospital has been taken down due to new construction at the hospital.

Public Service - Mike KØTER (636-1290):
Nothing to report.

VE Testing - Max KDØEL (488-9289):
Max was not in attendance, however the next VE Testing will be 19 Nov 88 at the 1st United Methodist church at St Vrain and Nevada.

Old Business:
Nothing in Old Business.

New Business:
Rick WB7THT gave the details concerning the Club Christmas Party. This year it will be held at the Iron Springs Chateau in Manitou Springs. Rick has currently 30 seats reserved and if you need any further info please give him a call at 599-7665.

Keith NYØT put out a call for a volunteer(s) to organize the Club Swapfest that will be held in May. Never to early to get a start at this club project.

Lauren KXØO, Malcolm KE9S, and Warren WØYNE spoke to the membership on the restrictive proposals put forth by the El Paso Land Use Commission to limit numbers of antennas and overall antenna height that can be sought by radio amateurs. They talked about the upcoming hearing for the planning commission on 15 Nov at Centennial Hall and how to present a dignified image to the planning commissioners.

Prizes - Rick WB7THT:
All prizes were mystery prizes.
Winners were:
NØISV-Wayne
NØHJT-Doug
NØCALL-Catherine
NØCIK-George
NØIER-Charles

Program:
The program was actually conducted ahead of the business meeting as the guest had come in from Denver and wanted to return before it was too late. Our guest was Steven Linn from the Denver office of the FCC. He works with the Enforcement Division and he covered a wide variety of topics associated with that and the FCC in general. Some interesting points that he brought out was that a pink slip is actually white in color; they cannot look into every complaint as they are three people that must cover five states; and that most of his complaints are 50% CB, 43% Paging and the remainder various. He did stay around to answer questions from the audience.

The meeting was adjourned at 2130.
The next meeting will be 14 Dec 88.

Minutes of the NOV Board Meeting

submitted by Al NØCMW

The November Board meeting of the PPRAA was held at the QTH of Ron NKØP on 14 Nov 88. In attendance was Doug NØHJT, Rick WB7THT, Al NØCMW, BDale N3EUA, Karen NIPED, Keith NYØT, and Dave N4DJS.

Keith NYØT will be changing the Ø-Beat application form to show that we are not affiliated with the PPFMA. Several people have been getting the two organizations confused.

on behalf of the PPRAA to the Boulder Amateur Legal Defence Fund. This donation will satisfy our commitment to the Lottery Licence that the club holds.

In future, the treasure will report any expenses over $100.00 in the Ø-Beat.

There will be a mass mailing in the Jan timeframe to cover club membership and the club swapfest to be held in May. It will also contain info on upcoming Novice classes.

It was voted to renew the Club Liability insurance.

Club renewals are due soon. Please remember that the Feb issue of Ø-Beat will be the last one that you will receive if you have not paid up.

The next Board meeting will be at the QTH of Rick WB7THT

Rick WB7THT and Ron NKØP have volunteered to organize the swapfest this year. However, they will need the assistance of all if it is going to be a success.

There being no further business, the meeting was adjourned at 2100 hrs.

MILEY'S RADIO

Jess KØTAA 719 W. 7th St. Florence, Colorado 81226 (719) 784-3040

Hours 9 to 6 Tuesday through Friday — Saturdays 9 to 1 — Evening Hours 7:30 to 10 Tues., Wed., Thurs. (Call Ahead)
Closed Saturday 1 PM, Sunday & Monday
Closed except by pre-arranged phone appointment Nov. 4 — Dec. 13.
If you come without calling first, we may be gone —

!Hamfest Season Over!

Used Rigs:

Dentron Clipperton L $575.
Heath 2000 — 2 — 3/500z's $575.
Kenwood TS520 80-10M $400.
Kenwood TS820S 160-10M $495.
Yaesu 101EX — Nice $400.
Yaesu FV 901DM Scanning VFO w/Memory for 901/101ZD $275.
Yaesu YO100 Scope $150.
Yaesu SP901 Speaker $35.
Yaesu FR101 Matching Recvr for 101 series $275.
Yeasu FT101B $375.

Mosley TA33 w/40M add-on, 54 ft. Rohn 25G Tower —
Includes top section w/thrust bearing approx 300 ft. coax —
10 ft. H.D. Mast, CD 45 Rotor w/control & cable,
guys, inverted V, 10 element horizontal 2M Beam
in Denver for pickup — on the ground, neatly packaged —
all for $525.00.

Lots more used and consignment equipment.

73's — Jess

MERRY CHRISTMAS!

Happy Holidays and a very good '89 to you.

Membership Application
PIKES PEAK RADIO AMATEUR ASSOCIATION, INC.
P.O. Box 16521
Colorado Springs, CO 80935

Name _____

Address _____

City _____ State _____ Zip _____

Call _____ License Class _____

Are You An ARRL Member? ☐ Yes ☐ No Telephone _____

☐ Full Member $12.00 ☐ Family Membership $15.00 ☐ Newsletter Only $6.00
☐ Age 65 or older, or under 18 $8.00

Additional Names _____ Call _____ Class _____

_____ _____ _____

_____ _____ _____

Associate Member $8.00 ☐ (Outside Teller & El Paso Counties.)

PPRAA is not associated with the Pikes Peak FM Association.